



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

WinDoor, Inc.
7500 Amsterdam Drive
Orlando, FL 32832

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "9000 Shallow 180° Thermally Broken" Clipped Aluminum Tube Mullion - L.M.I.

APPROVAL DOCUMENT: Drawing No. 08-01377, titled "9000 Series Shallow 180° Vertical Mullion - LMI and SMI 120" Span", sheets 1 through 5 of 5, dated 12/12/11, with revision B dated 09/04/13, prepared by manufacturer, signed and sealed by Luis R. Lomas, P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and approval date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.



Handwritten signature and date:
9/26/13

NOA No. 13-0723.02
Expiration Date: October 03, 2018
Approval Date: October 03, 2013
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No. **08-01377**, titled "9000 Series Shallow 180° Vertical Mullion – LMI and SMI 120" Span", sheets 1 through 5 of 5, dated 12/12/11, with revision B dated 09/04/13, prepared by manufacturer, signed and sealed by Luis R. Lomas, P.E.

B. TESTS

1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94
3) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a series 9020 thermally broken aluminum fixed windows with 180° thermally broken field mullion, prepared by National Certified Testing Laboratories, Test Report No. **NCTL-210-3774-4**, dated 07/25/12, signed and sealed by Gerard J. Ferrara, P.E.

C. CALCULATIONS:

1. Anchor verification calculations and structural analysis, complying with **FBC-2010**, dated 09/04/12 and 07/11/13, prepared, signed and sealed by Luis R. Lomas, P.E.

A. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

B. MATERIAL CERTIFICATIONS

1. Material Data Sheet for "insulating profiles made of PA 66 GF25 – dry impact resistant, to fit into Technoform I-Strut™ Aluminum Standard Reglet.
2. Test report No. **ATI-61261.01-106-18**, prepared by Architectural Testing, Inc., dated 12/08/05, with revision date 01/04/06, issued to **Technoform**, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D635-03** "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position" and **ASTM D2843-99** "Standard Test Method for the Density of Smoke from the Burning Decomposition of Plastics", signed and sealed by Joseph A. Reed, P.E.
3. Test report No. **ETC-07-1043-19094.0**, prepared by ETC Laboratories, dated 02/04/08, issued to Technoform Bautech NA, Inc., for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D638-03** "Standard Test Methods for Tensile Properties of Plastics", for exposed & unexposed sample per Xenon Arc after 4500 Hours, signed and sealed by Joseph Labora Doldan, P.E.


Manuel Perez, P.E.
Product Control Examiner
NOA No. 13-0723.02

Expiration Date: October 03, 2018
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E. MATERIAL CERTIFICATIONS (CONTINUED)

4. Test report No. **ETC-08-1043-20974.0**, prepared by ETC Laboratories, dated 07/01/08, issued to Technoform, for their **I-Strut Insulating Strip** comprised of Polyamide with 25% glass fibers, per **ASTM D1929-96** "*Standard Test Method for Ignition Properties of Plastics*", signed and sealed by Joseph Doldan, P.E.

D. STATEMENTS

1. Statement letter of conformance, complying with the **FBC-2010** and of no financial interest, dated July 11, 2013, signed and sealed by Luis R. Lomas, P.E.
2. Proposal **#11-1698** issued by Product Control on 02/28/12 signed by Manuel Perez, P.E.

G. OTHERS

1. None.



Manuel Perez, P.E.
Product Control Examiner
NOA No. 13-0723.02

Expiration Date: October 03, 2018

Approval Date: October 03, 2013

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	07/15/13	R.L.
B	REVISED B.O.M.	09/04/13	R.L.

NOTES:

- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE, IN ACCORDANCE WITH SECTION 1715.5.5
- 2) WOOD FRAMING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. FRAMING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 3) ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 4) APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
- 5) DESIGN PRESSURE AND INSTALLATION DETAILS SHOWN IN THIS DOCUMENT APPLY ONLY TO MULLION. WINDOWS MUST BE APPROVED UNDER SEPARATE APPROVAL.
- 6) SINGLE WINDOWS TO BE MULLED ARE NOT LIMITED TO THOSE SHOWN IN THIS DRAWING. WINDOWS MUST BE MANUFACTURED BY WinDoor INC.
- 7) DESIGN PRESSURE OF MULLED UNIT SHALL BE CONTROLLED BY THE LESSER DESIGN PRESSURE OF THE MULLION OR THE INDIVIDUAL WINDOW OR DOOR UNIT.
- 8) UNITS MAY BE MULLED TOGETHER INDEFINITELY AS LONG AS SINGLE UNIT WIDTH AND HEIGHT ARE NOT EXCEEDED AND MULLION IS ANCHORED AS SHOWN HEREIN.
- 9) MULLION VERTICAL INSTALLATION IS SHOWN, MULLION MAY BE USED IN HORIZONTAL APPLICATIONS AS LONG AS DIMENSIONS INDICATED HEREIN ARE NOT EXCEEDED AND MULLION IS ANCHORED ACCORDING TO THIS DOCUMENT.

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1	NOTES
2	ELEVATIONS DESIGN PRESSURE CHART
3	BILL OF MATERIALS AND COMPONENTS
4 - 5	INSTALLATION DETAILS

Approved as complying with the
Florida Building Code
Date Oct 3, 2013
NOA# 13-0723-07
Miami Dade Product Control
By Maurice Ruiz

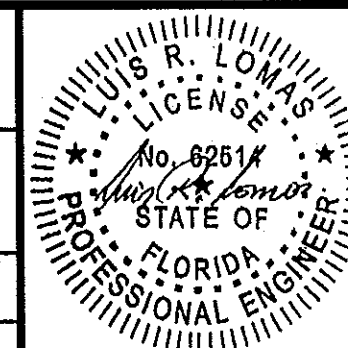
WinDoor
INCORPORATED

7500 AMSTERDAM DRIVE
ORLANDO, FL 32832
Phone: 407.481.8400
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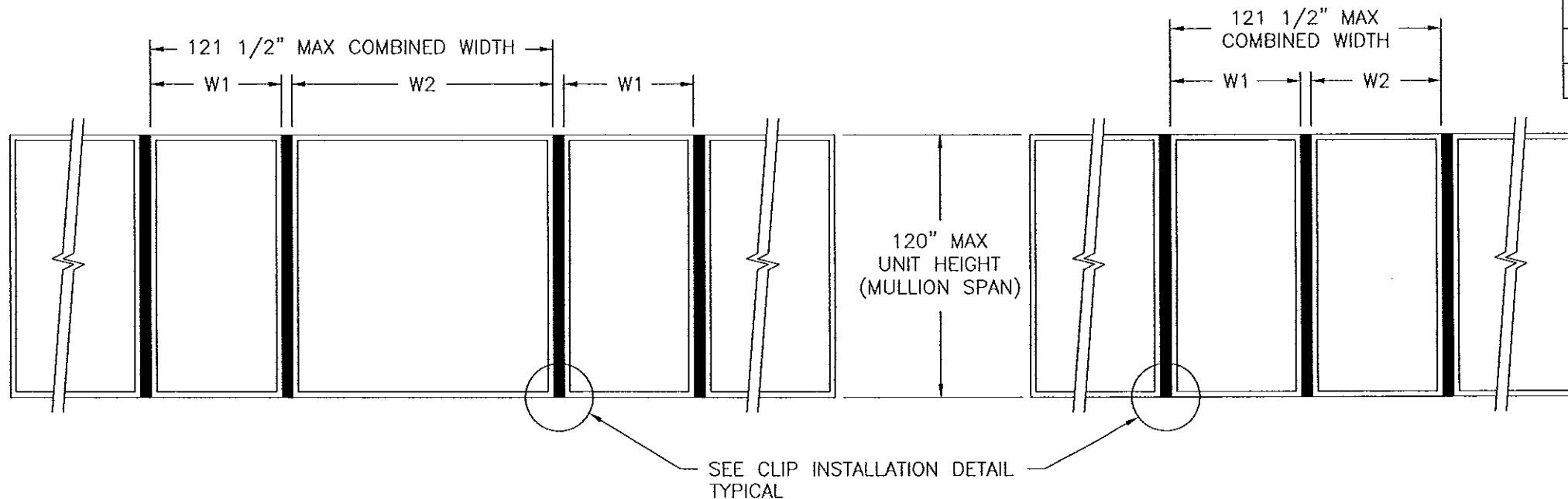
9000 SERIES SHALLOW 180° VERTICAL MULLION
LMI AND SMI 120" SPAN
ELEVATION AND NOTES

DRAWN: R.L.	DWG NO. 08-01377	REV B
SCALE NTS	DATE 12/12/11	SHEET 1 OF 5

SIGNED: 09/04/2013



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
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Maximum design pressure (psf)

Height (in)	Tributary width													
	24.0		30.0		36.0		42.0		48.0		54.0		60.0	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
26.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
30.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
36.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
42.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
48.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
54.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0
60.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	145.8	145.8	141.4	141.4	140.0	140.0
66.0	150.0	150.0	150.0	150.0	145.8	145.8	133.3	133.3	125.0	125.0	119.7	119.7	116.7	116.7
72.0	150.0	150.0	147.4	147.4	129.6	129.6	117.6	117.6	109.4	109.4	103.7	103.7	100.0	100.0
78.0	150.0	150.0	133.3	133.3	116.7	116.7	105.3	105.3	97.2	97.2	91.5	91.5	87.5	87.5
84.0	145.8	145.8	121.7	121.7	106.1	106.1	95.2	95.2	87.5	87.5	81.9	81.9	77.8	77.8
90.0	134.6	134.6	112.0	112.0	97.2	97.2	87.0	87.0	79.5	79.5	74.1	74.1	70.0	70.0
96.0	125.0	125.0	103.7	103.7	89.7	89.7	80.0	80.0	72.9	72.9	67.6	67.6	63.6	63.6
102.0	116.7	116.7	96.6	96.6	83.3	83.3	74.1	74.1	67.3	67.3	62.2	62.2	58.3	58.3
108.0	109.4	109.4	90.3	90.3	77.8	77.8	69.0	69.0	62.5	62.5	57.6	57.6	53.8	53.8
114.0	102.9	102.9	84.8	84.8	72.9	72.9	64.5	64.5	57.7	57.7	52.1	52.1	47.8	47.8
120.0	97.2	97.2	80.0	80.0	67.3	67.3	58.3	58.3	51.7	51.7	46.7	46.7	42.7	42.7

MISSILE LEVEL D, WIND ZONE 4 AND HVHZ

$$\text{TRIBUTARY WIDTH} = \frac{W1 + W2}{2}$$

DESIGN PRESSURE TABLE INSTRUCTIONS:

- 1) DEFINE REQUIRED DESIGN LOAD PER FLORIDA BUILDING CODE CHAPTER 16.
- 2) DETERMINE TRIBUTARY WIDTH AND MULLION SPAN BASED ON PRODUCT TO BE INSTALLED. SEE FORMULA FOR TRIBUTARY WIDTH.
- 3) LOCATE MULLION SPAN (UNIT HEIGHT) AND TRIBUTARY WIDTH. AT THE INTERSECTION OF ROW AND COLUMN CONTAINING THE MULLION SPAN AND TRIBUTARY WIDTH RESPECTIVELY IS THE MULLION RATING FOR PRODUCT IN STEP 2. MULLION RATING MUST BE EQUAL OR GREATER THAN REQUIRED DESIGN PRESSURE OBTAINED IN STEP 1.

SIGNED: 09/04/2013

Approved as complying with the
Florida Building Code
Date Oct 3, 2013
By 13-0723-07
Miami Dade Product Control

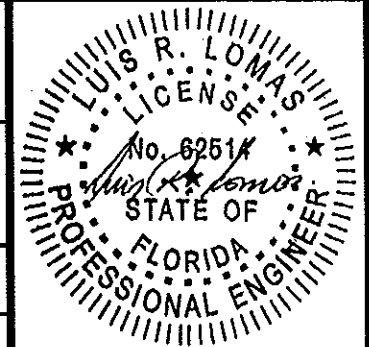
By M. J. [Signature]

WinDoor
INCORPORATED

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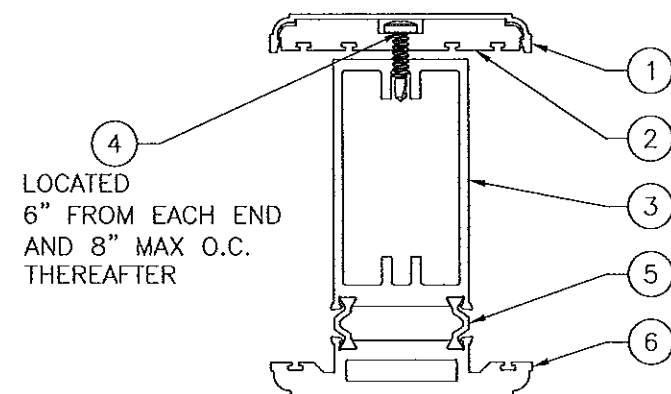
9000 SERIES SHALLOW 180° VERTICAL MULLION
LMI AND SMI 120" SPAN
ELEVATION AND NOTES

DRAWN: R.L.	DWG NO. 08-01377	REV B
SCALE NTS	DATE 12/12/11	SHEET 2 OF 5



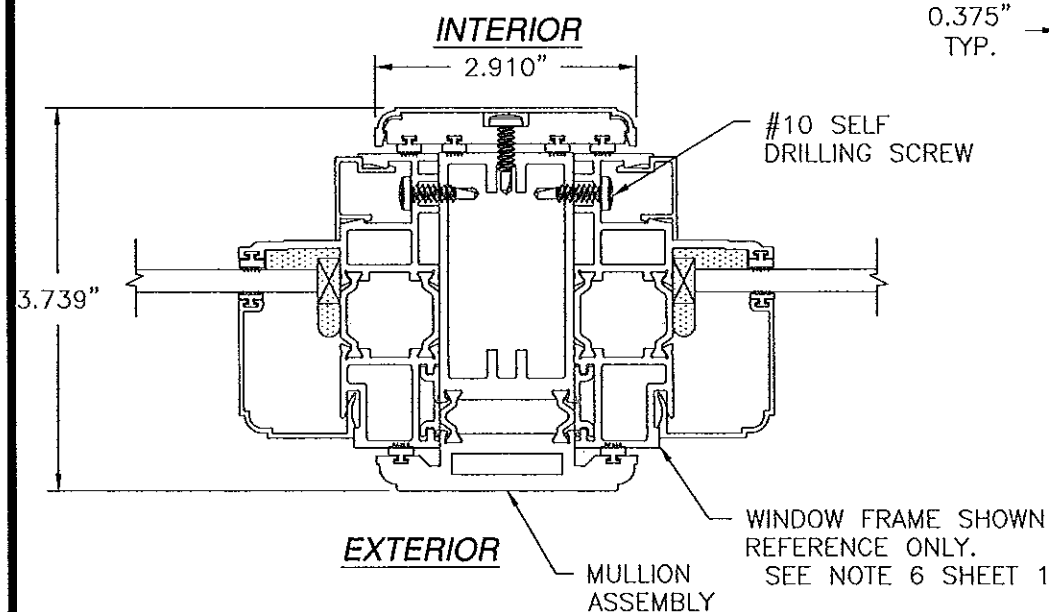
BILL OF MATERIALS				
ITEM NO.:	PART NUMBER	DESCRIPTION	MANUFACTURER	MATERIAL
1	S-49673	180° FIELD MULL PLATE COVER	KEYMARK	ALUMINUM 6063-T6
2	S-49672	180° FIELD MULL PLATE	KEYMARK	ALUMINUM 6105-T6
3	H-12329	180° MULL INTERIOR	KEYMARK	ALUMINUM 6063-T6
4	131009	#10X3/4" PH SELF DRILLING SCREW		STAINLESS STEEL
5		14.6 MM THERMAL STRUT	TECHNOFORM	NYLON POLYAMIDE (PA 66 GF25)
6	H-12328	180° MULL EXTERIOR	KEYMARK	ALUMINUM 6063-T6

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	07/15/13	R.L.
B	REVISED B.O.M.	09/04/13	R.L.

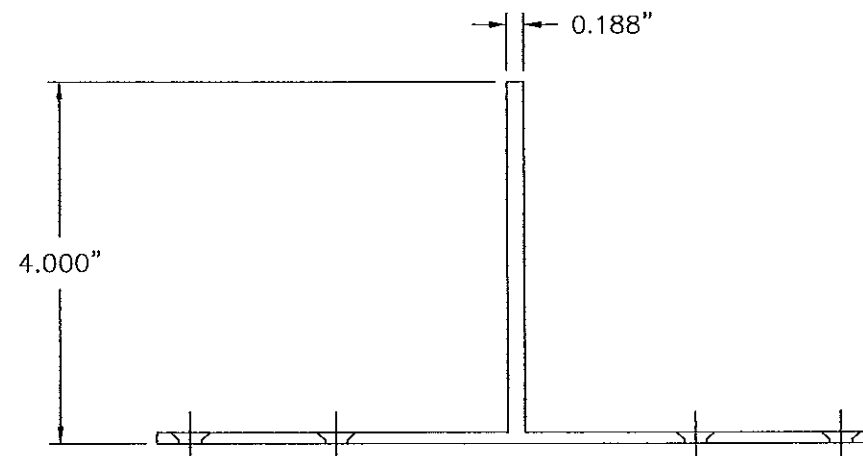


MULLION ASSEMBLY DETAIL

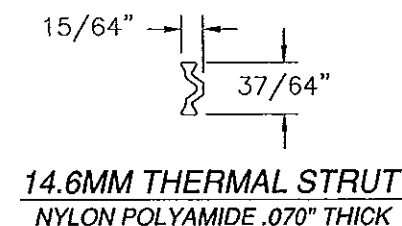
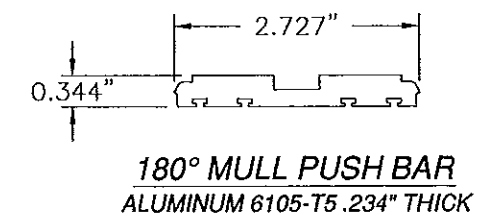
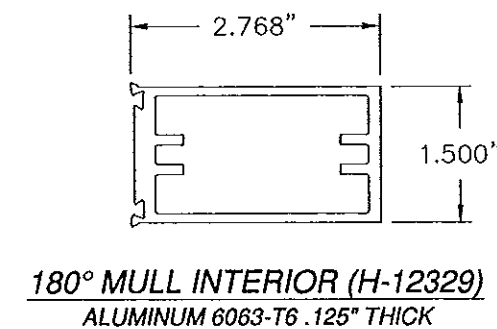
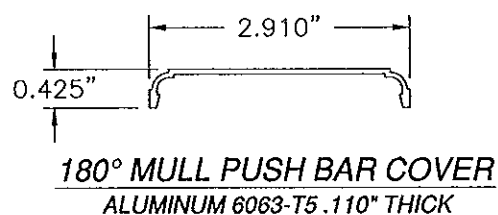
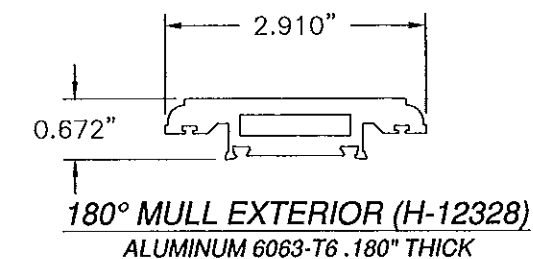
MOMENT OF INERTIA: 7.612 in^4
(MI PER TIR-A8 SOFTWARE)



**WINDOW TO MULLION
INSTALLATION DETAIL**
WINDOW FRAME SHOWN FOR DETAIL
PURPOSES ONLY, MULLION IS NOT LIMITED
TO THIS PRODUCT



MULL T-CLIP
ALUMINUM 6063-T6 .125" THICK



SIGNED: 09/04/2013

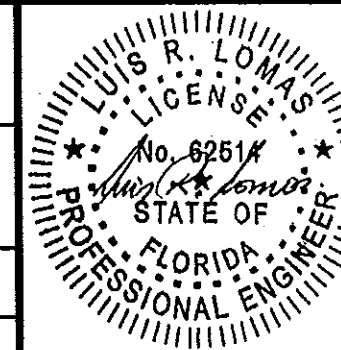
Approved as complying with the
Florida Building Code
Date: 09/03/2013
NOA# 13-0123-02
Miami Dade Product Control
By: *Manuel Perez*

WinDoor
INCORPORATED

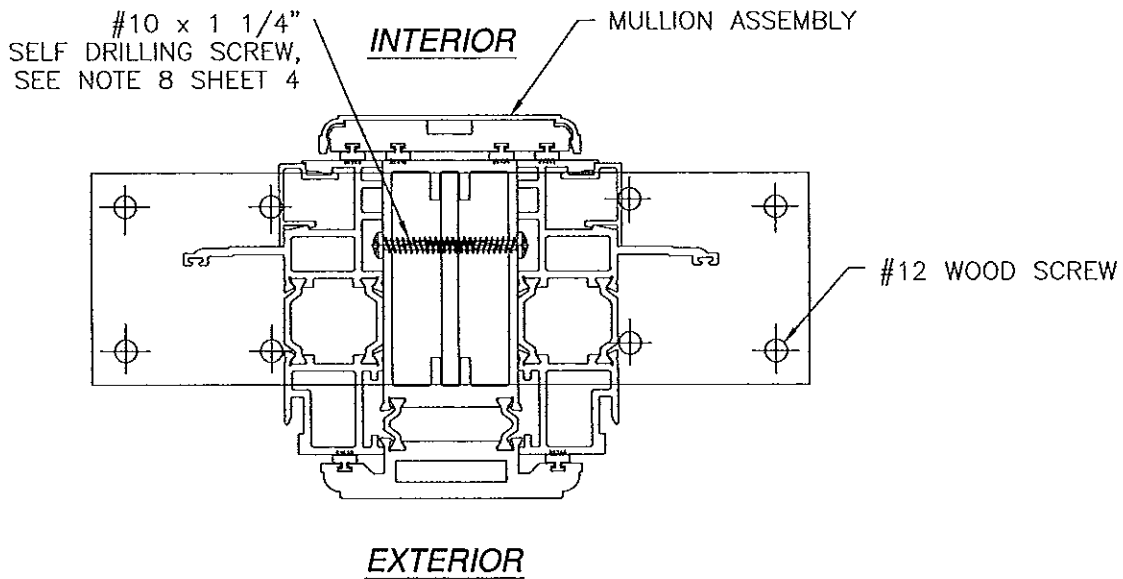
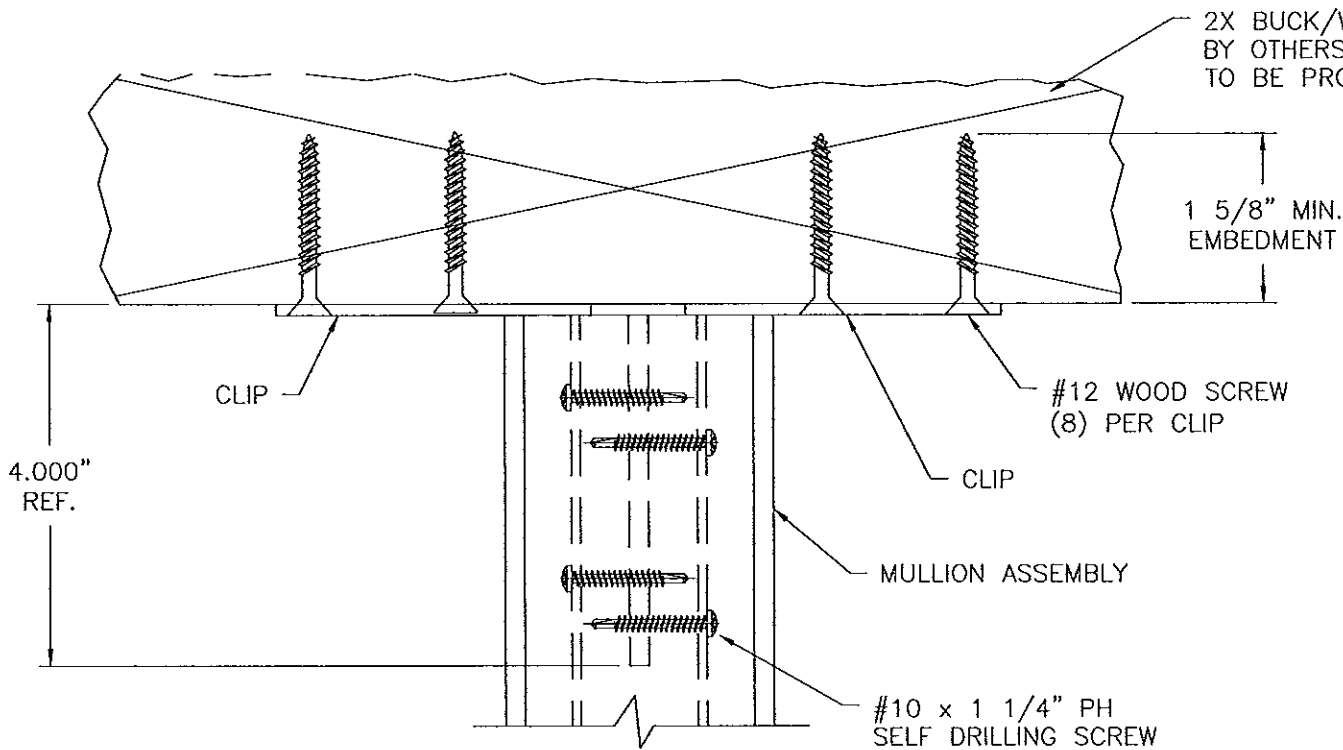
7500 AMSTERDAM DRIVE
ORLANDO, FL 32832
Phone: 407.481.8400
Fax: 407.481.0505
www.windoorinc.com

9000 SERIES SHALLOW 180° VERTICAL MULLION
LMI AND SMI 120" SPAN
B.O.M. AND COMPONENTS

DRAWN: R.L.	DWG NO. 08-01377	REV B
SCALE NTS	DATE 12/12/11	SHEET 3 OF 5



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	07/15/13	R.L.
B	REVISED B.O.M.	09/04/13	R.L.



CLIP INSTALLATION DETAIL
2X BUCK/WOOD FRAMING, TOP & BOTTOM SIMILAR

ANCHORING NOTES:

- 1) FOR ANCHORING INTO WOOD FRAMING OR 2X BUCK USE #12 WOOD SCREW WITH SUFFICIENT LENGTH TO ACHIEVE A 1 5/8" MINIMUM EMBEDMENT. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 3.
- 2) FOR ANCHORING INTO CONCRETE USE 1/4" TAPCON WITH SUFFICIENT LENGTH TO ACHIEVE A 1 3/4" MINIMUM EMBEDMENT WITH 2 1/2" MINIMUM EDGE DISTANCE. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 4.
- 3) FOR ANCHORING INTO METAL STRUCTURE USE #12 SELF DRILLING SCREW WITH SUFFICIENT LENGTH TO ACHIEVE 3-THREADS MINIMUM BEYOND METAL FRAMING. LOCATE ANCHORS AS SHOWN IN INSTALLATION DETAILS SHEET 4.
- 4) FOR ATTACHING WINDOW UNITS TO MULLION USE #10 SELF DRILLING SCREWS WITH SUFFICIENT LENGTH TO ACHIEVE A MINIMUM EMBEDMENT OF THREE THREADS PAST THE MULLION WALL. LOCATE SCREWS 6" FROM EACH MULLION END AND 24" MAX. O.C. THEREAFTER. STAGGER SCREWS AT EACH WINDOW.
- 5) FOR WINDOW AND DOOR UNITS ANCHORING SCHEDULE REFER TO WINDOW AND DOOR APPROVED INSTALLATION INSTRUCTIONS.
- 6) ALL FASTENERS TO BE CORROSION RESISTANT.
- 7) INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 - A. WOOD - MINIMUM SPECIFIC GRAVITY OF G=0.42
 - B. CONCRETE - 2000 PSI MINIMUM
 - C. METAL STRUCTURE - STEEL 16GA. (.063") 33KSI MINIMUM OR ALUMINUM 6063-T5 1/8" THICK MINIMUM.
- 8) TO ATTACH MULLION TO CLIP USE (4) #10 x 1 1/4" SELF DRILLING SCREWS PER CLIP. SCREWS MUST BE FIELD INSTALLED. HOLES FOR SCREWS ARE NOT PRE-DRILLED BY MANUFACTURER.

SIGNED: 09/04/2013

Approved as complying with the
Florida Building Code
Date 09/03/2013
By Manuel P. [Signature]
Professional Engineer
No. 13-0723.07
Mfg and Trade Product Control

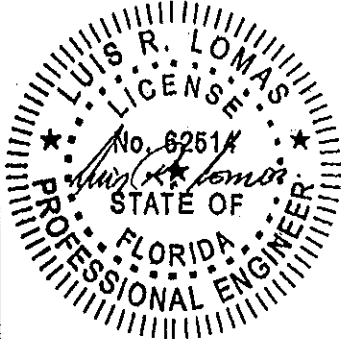
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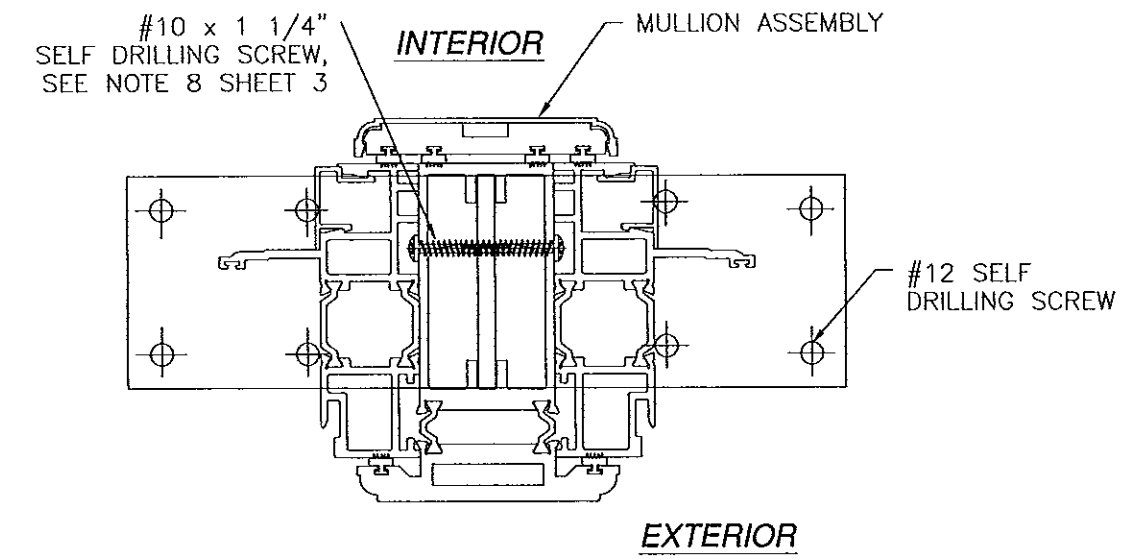
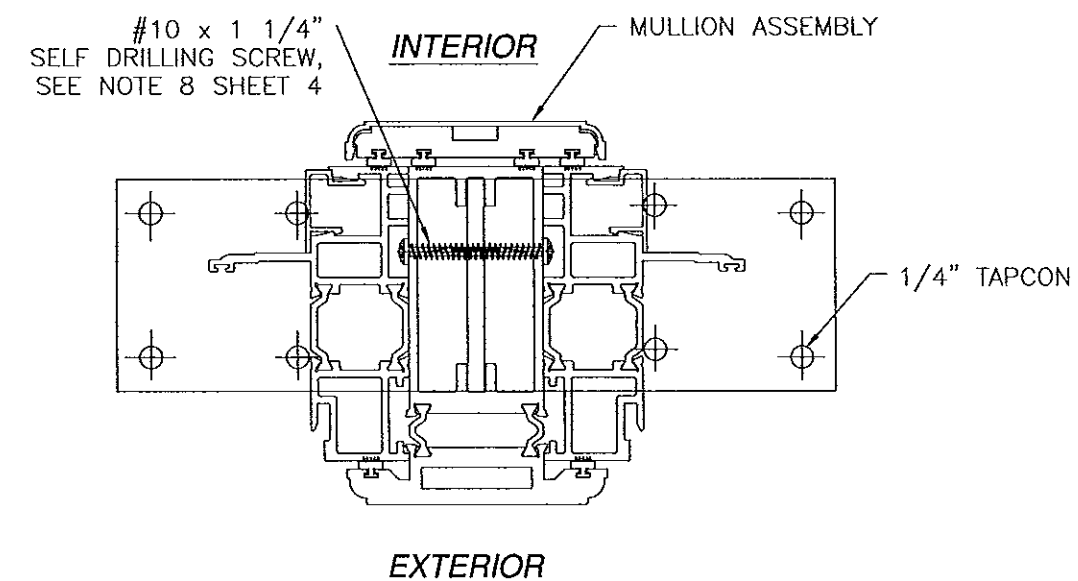
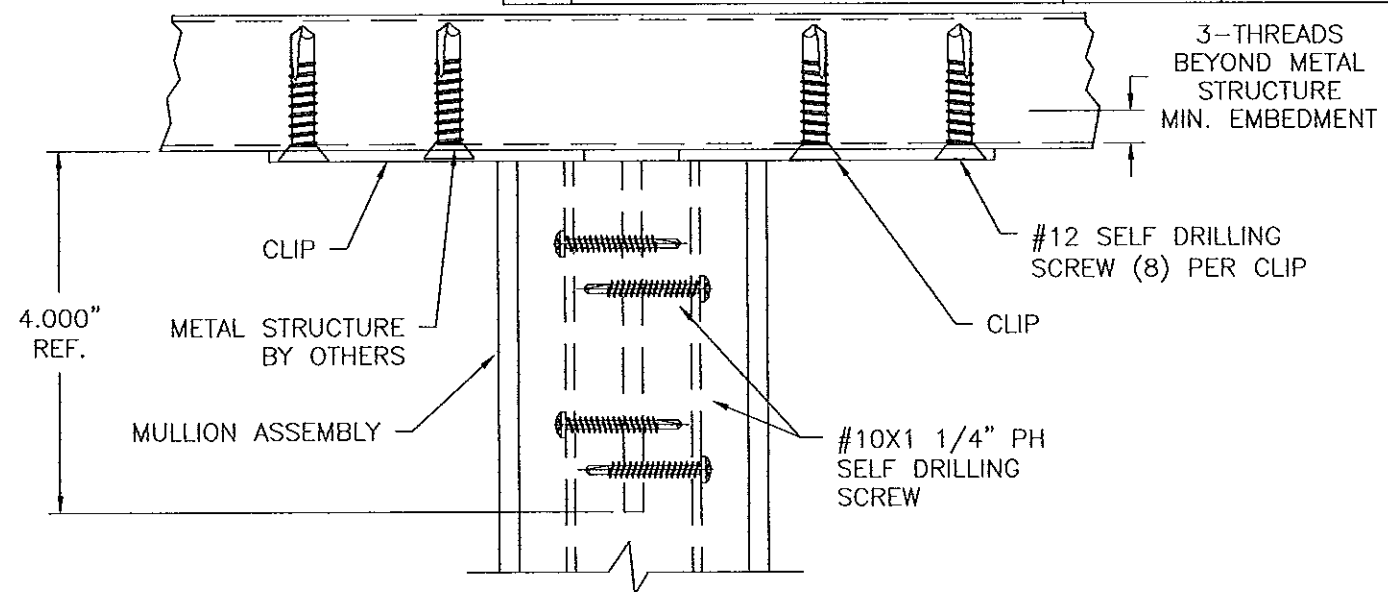
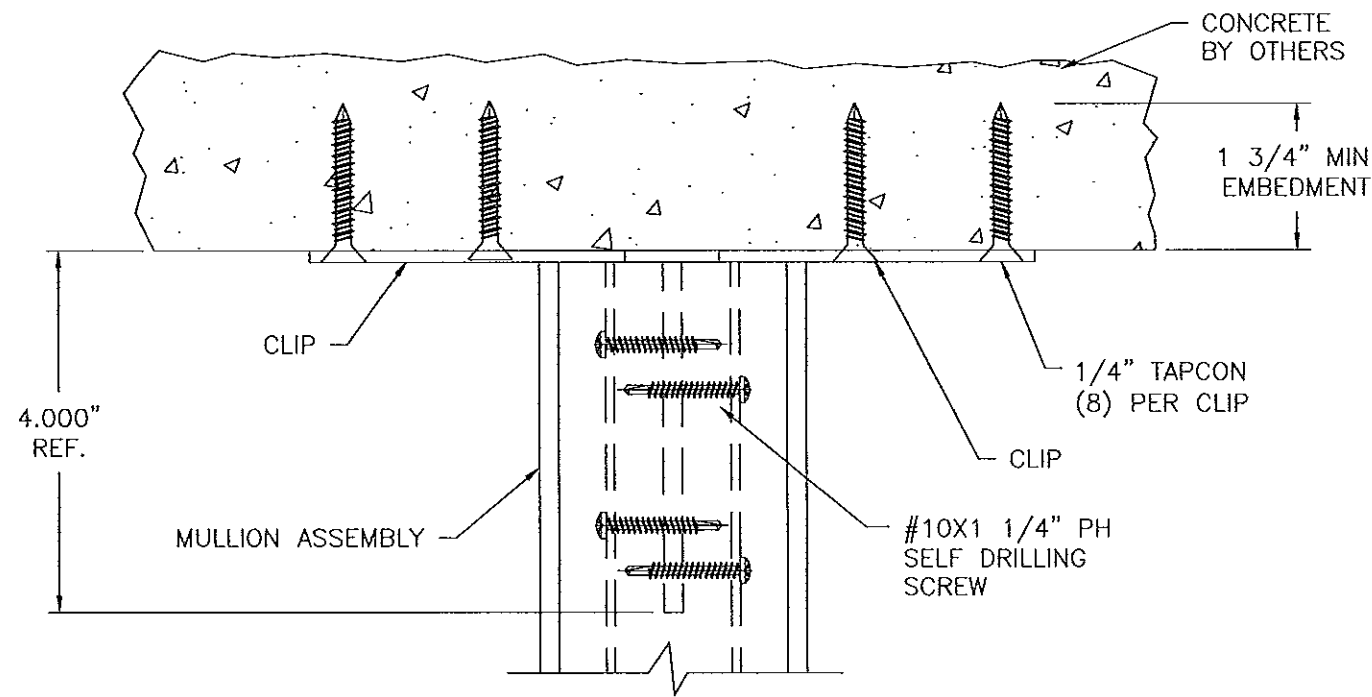
9000 SERIES SHALLOW 180° VERTICAL MULLION
LMI AND SMI 120" SPAN
INSTALLATION DETAILS

DRAWN: R.L.	DWG NO. 08-01377	REV B
SCALE NTS	DATE 12/12/11	SHEET 4 OF 5

LUIS R. LOMAS
No. 62514
Professional Engineer
STATE OF FLORIDA



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER NEW TESTING	07/15/13	R.L.
B	REVISED B.O.M.	09/04/13	R.L.



CLIP INSTALLATION DETAIL
CONCRETE INSTALLATION, TOP & BOTTOM SIMILAR

CLIP INSTALLATION DETAIL
METAL STRUCTURE, TOP & BOTTOM SIMILAR

SIGNED: 09/04/2013

Approved as complying with the
Florida Building Code
Date Oct 3 2013
NOA# 13-07123.02
Miami Dade Product Control
By Maurice Bure

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9000 SERIES SHALLOW 180° VERTICAL MULLION
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DRAWN: R.L.	DWG NO. 08-01377	REV B
SCALE NTS	DATE 12/12/11	SHEET 5 OF 5

